Amendment to the Claims:

Please **cancel** claims 1, 2, 6, 7, 10, 12, 13, 15, 16 and 19.

Claims 1-2 (Cancelled)

3. (Currently amended) A mass flow controller comprising:

a base having a first passage through which a fluid passes, an inlet portion for introducing the fluid into the first passage and an outlet portion for releasing the fluid from the first passage;

a mass flow sensor connected to the first passage adjacent to the inlet portion for measuring a mass flow of the fluid passing through the first passage;

a first control valve connected to the first passage adjacent to the outlet portion for controlling the mass flow of the fluid passing through the first passage;

a valve controller that compares the mass flow measured by the mass flow sensor to a standard flow and for controlling the first control valve to correspond the mass flow of the fluid to the standard flow; and

a second control valve connected to the first passage adjacent to the inlet portion for controlling a full scale of the mass flow of the fluid passing through the first passage, wherein the second control valve includes a valve body that controls an opened sectional area of the first passage and a driving unit that traverses the first passage with the valve body, ~~The mass flow controller of claim 2~~, wherein the valve body includes a shape corresponding to a sectional shape of the first passage and a plurality of holes through which the fluid passes.

4. (Currently amended) The mass flow controller of claim 3 ~~2~~, wherein the driving unit includes a solenoid.

5. (Currently amended) The mass flow controller of claim 3 ~~2~~, wherein the driving unit comprises:

a motor generating a rotary force;

a driving screw connected to the motor that is rotated by the rotary force; and

a driven screw, connected between the driving screw and the valve body, which is reciprocally moved in straight line by the rotary force.

Claims 6-7 (cancelled)

8. (Currently amended) A mass flow controller comprising:

a base having a first passage through which a fluid passes, an inlet portion for introducing the fluid into the first passage and an outlet portion for releasing the fluid from the first passage;

a mass flow sensor connected to the first passage adjacent to the inlet portion for measuring a mass flow of the fluid passing through the first passage;

a first control valve connected to the first passage adjacent to the outlet portion for controlling the mass flow of the fluid passing through the first passage;

a valve controller that compares the mass flow measured by the mass flow sensor to a standard flow and for controlling the first control valve to correspond the mass flow of the fluid to the standard flow;

a second control valve connected to the first passage adjacent to the inlet portion for controlling a full scale of the mass flow of the fluid passing through the first passage; and a bypass portion through which the fluid passes disposed in the first passage adjacent to the inlet portion, wherein the bypass portion includes a plurality of capillaries,

~~The mass flow controller of claim 7~~, wherein the second control valve includes a valve body that opens/closes the capillaries and a driving unit that traverses the first passage with the valve body.

9. (Currently amended) The mass flow controller of claim 8 ~~7~~, further comprising a sampling pipe having a first end connected to a first portion of the first passage adjacent to an inlet end of the bypass portion and a second end connected to a second portion of the first passage adjacent to a releasing end of the bypass portion, wherein the sampling pipe is connected to the mass flow sensor.

10. (Cancelled)

11. (Currently amended) A mass flow controller comprising:

a base having a first passage through which a fluid passes, an inlet portion for introducing the fluid into the first passage and an outlet portion for releasing the fluid from the first passage;

a mass flow sensor connected to the first passage adjacent to the inlet portion for measuring a mass flow of the fluid passing through the first passage;

a first control valve connected to the first passage adjacent to the outlet portion for controlling the mass flow of the fluid passing through the first passage;

a valve controller that compares the mass flow measured by the mass flow sensor to a standard flow and for controlling the first control valve to correspond the mass flow of the fluid to the standard flow;

a second control valve connected to the first passage adjacent to the inlet portion for controlling a full scale of the mass flow of the fluid passing through the first passage, ~~The mass flow controller of claim 10,~~; and a bypass portion through which the fluid passes disposed in the first passage adjacent to the inlet portion, wherein the bypass portion includes a sectional shape corresponding to a sectional shape of the first passage and a plurality of second passages through which the fluid passes, wherein the second control valve comprises:

a valve body disposed on a side of the bypass portion and having a plurality of holes corresponding to the second passages; and

a driving unit that varies positions of the valve body to control the full scale of the mass flow of the fluid passing through the second passages and the holes.

Claims 12-13 (Cancelled)

14. (Currently amended) The mass flow controller of claim 3 ~~1~~, wherein the first control valve includes a solenoid valve, a thermal valve or a piezoelectric valve.

Claims 15-16 (Cancelled)

17. (Currently amended) A mass flow controller comprising:

a base mounted on a gas pipe and having a first passage through which the gas passes, an inlet portion for introducing the gas into the passage and an outlet portion for releasing the gas from the passage;

a bypass portion disposed in the first passage, the gas passing through the bypass portion;

a mass flow sensor that measures a mass flow of a sample gas extracted from the gas passing through the bypass portion and generates a signal corresponding to the measured mass flow;

a first control valve, connected to the passage adjacent to the outlet portion, that controls the mass flow of the gas passing through the first passage;

a valve controller that compares the signal generated from the mass flow sensor to a standard signal and controls the first control valve to correspond the mass flow of the fluid to the standard flow; and

a second control valve, connected to the first passage adjacent to the bypass portion, which controls a full scale of the mass flow of the gas passing through the bypass portion, wherein the second control valve includes a valve body for controlling an opened sectional area of the first passage and a driving unit traversing the first passage with the valve body ~~The mass flow controller of claim 16~~, wherein the valve body includes a shape corresponding to a sectional shape of the first passage and a plurality of holes through which the gas passes.

18. (Currently amended) A mass flow controller comprising:

a base mounted on a gas pipe and having a first passage through which the gas passes, an inlet portion for introducing the gas into the passage and an outlet portion for releasing the gas from the passage;

a bypass portion disposed in the first passage, the gas passing through the bypass portion;

a mass flow sensor that measures a mass flow of a sample gas extracted from the gas passing through the bypass portion and generates a signal corresponding to the measured mass flow;

a first control valve, connected to the passage adjacent to the outlet portion, that controls the mass flow of the gas passing through the first passage;

a valve controller that compares the signal generated from the mass flow sensor to a standard signal and controls the first control valve to correspond the mass flow of the fluid to the standard flow; and

a second control valve, connected to the first passage adjacent to the bypass portion, which controls a full scale of the mass flow of the gas passing through the bypass portion, ~~The mass flow controller of claim 15~~, wherein the bypass portion includes a plurality of capillaries, and the second control valve includes a valve body that opens/closes the capillaries and a driving unit that traverses the passage with the valve body.

19. (Cancelled)

20. (Currently amended) A mass flow controller comprising:

a base mounted on a gas pipe and having a first passage through which the gas passes, an inlet portion for introducing the gas into the passage and an outlet portion for releasing the gas from the passage;

a bypass portion disposed in the first passage, the gas passing through the bypass portion;

a mass flow sensor that measures a mass flow of a sample gas extracted from the gas passing through the bypass portion and generates a signal corresponding to the measured mass flow;

a first control valve, connected to the passage adjacent to the outlet portion, that controls the mass flow of the gas passing through the first passage;

a valve controller that compares the signal generated from the mass flow sensor to a standard signal and controls the first control valve to correspond the mass flow of the fluid to the standard flow; and

a second control valve, connected to the first passage adjacent to the bypass portion, which

controls a full scale of the mass flow of the gas passing through the bypass portion, wherein the bypass portion includes a first sectional shape corresponding to a sectional shape of the passage and a plurality of second passages through which the gas passes, ~~The mass flow controller of claim 19~~, wherein the second control valve comprises:

a valve body disposed on a side of the bypass portion and having a plurality of holes corresponding to the second passages; and

a driving unit that varies positions of the valve body to control the full scale of the mass flow of the gas passing through the second passages and the holes.

21. (Currently amended) The mass flow controller of claim 20 ~~19~~, wherein the bypass portion includes a second sectional shape corresponding to the sectional shape of the first passage having a plurality of third passages, wherein the second sectional shape is disposed between the inlet portion and the first sectional shape.